

# EDI HOME

Welcome to the Division of Oil, Gas and Mining's Electronic Data Input (EDI) Site!

If you are reading this... Then you CAN submit water monitoring data electronically. The EDI web site will guide you step-by-step through the process:

1. [Downloading and Installing the Software](#)
2. [Using the Software](#)
3. [Submitting Data](#)
4. [Frequently Asked Questions](#)

## About This Web Site:

For the past few years, the Division of Oil, Gas and Mining has been compiling current and historic water monitoring data into a database system. The database is written in APPX and stored on a Unix operating system shared by DOGM and the Utah Department of Health. The Division intends on making the water monitoring information on the APPX database freely available to coal operators, consultants, and the general public.

Having a large resource of data available will be invaluable in the analysis of hydrologic data related to coal mine permitting. Performing statistical analysis on the water data affords the permittee the opportunity to evaluate sampling sites and parameters and minimize the amount of sample sites or number of sample parameters needed to meet hydrologic baseline and monitoring requirements. Such results could have a significant cost savings in the number and type of samples required over the life of a permit operation. Future cost savings are also anticipated by developing a method of electronically reporting and submitting water monitoring information to the Division rather than copying, collating, and summarizing the hard copies of the laboratory data analysis sheets.

The purpose of EDI and this Web Site is to eliminate the errors and the redundancy of having to re-enter and re-compile water monitoring information. Eventually, the Division would like to have all water monitoring information submitted in an electronic format which is created and sent directly from the laboratory to the coal operator and/or the Division.

To date, the Division has spent several thousand hours in time and effort to create and enter water monitoring information into the APPX water quality database. This mainframe program has the ability to perform many types of analysis and statistics on the water data as well as report data using various criteria. The Division found that re-entering the data by hand from the lab sheets and annual reports was both time consuming and vulnerable to data entry error. To keep the database current, it was obvious that a method of electronic data entry would be both more accurate and cost effective.

The Division established a standard comma delimited file format for the electronic transfer of data. This format will be referred to as "the standard EDI format," and will be used by the Division to input data into the APPX water quality database. This standard format will also be used as the standard output format so that other may incorporate data from the APPX database into their own system.

In order to pre- and post-process the standard EDI file, a program was written by the Division

and is called the WATERINPUT program. This site deals with using this program to enter, view, import, submit, and print data using the WATERINPUT program.

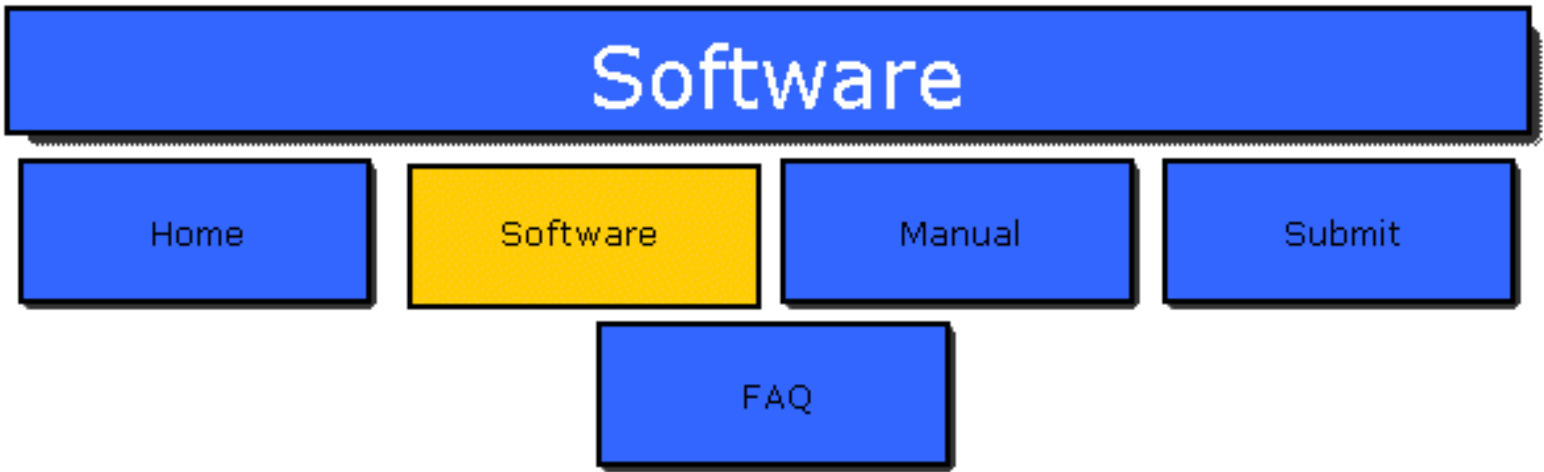


Last Updated on 08/31/99

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Questions or Problems - [Email Randy Harden: nrogm.rharden@state.ut.us](mailto:nrogm.rharden@state.ut.us)



## Follow these steps to download and install the software necessary for EDI:

Note - In order to install the program, you must be running Microsoft Windows 95/98/2000.

The program was written and compiled in Microsoft Visual FoxPro 6.0. In order to run the program, the Visual FoxPro runtime files must be installed on your computer. This installation only needs to be done once and you will NOT need to re-install them each time there is a revision or an update to the WATERINPUT program. Because the runtime library files are large (over 4 MB) it was decided to have them installed separately, rather than including them with the WATERINPUT program. This will make upgrading easier and keep the actual program files relatively small.

### STEP 1 - INSTALL VISUAL FOXPRO RUNTIME FILES

To install the Visual FoxPro runtime files, you will need to download them. This can most easily be done as follows:

- Open the DOGM FTP site to the Visual FoxPro Setup Directory. You can click here to go directly to it >>> <ftp://dogm.nr.state.ut.us/Pub/Software/vfpsetup/>
- Now Copy the following files from the ftp directory into your system directory:
  - ⊗ [Copy VFP6R.DLL to C:\windows\system\VFP6R.DLL](#)
  - ⊗ [Copy VFP6RENU.DLL to C:\windows\system\VFP6RENU.DLL](#)
  - ⊗ [Copy VFP6RUN.EXE to C:\windows\system\VFP6RUN.EXE](#)
- Also check to see if you have [C:\windows\system\MSVCRT.DLL](#) already installed on your computer system. If not, you also need to copy the following file from the ftp directory into you system directory:
  - ⊗ [Copy MSVCRT.DLL to C:\windows\system\MSVCRT.DLL](#)

THE ABOVE FILES ARE ALL THE RUNTIME FILES YOU NEED FOR VISUAL FOXPRO.

For Advanced Users - You can download and save VFPSETUP.ZIP, which is a compressed file that has all of the Visual FoxPro runtime files, then expand and install the files yourself at your convenience.

### STEP 2 - DOWNLOADING AND INSTALLING THE WATERINPUT PROGRAM

Install the WATERINPUT program as follows:



First, create a directory to copy the program files to



Example: **C:\WATERINPUT**



Open the DOGM FTP site to the WATERINPUT Directory. You can click here to go directly to it >>> <ftp://dogm.nr.state.ut.us/pub/Software/Waterinput/>



Now Copy the following files from the ftp directory into your **C:\WATERINPUT** directory:



[Copy WATERINPUT.EXE to C:\WATERINPUT\WATERINPUT.EXE](#)



[Copy SITES.TBL to C:\WATERINPUT\SITES.TBL](#)



[Copy LABS.TBL to C:\WATERINPUT\LABS.TBL](#)



[Copy METHODS.TBL to C:\WATERINPUT\METHODS.TBL](#)



[Copy PARAMETER.TBL to C:\WATERINPUT\PARAMETER.TBL](#)



[Copy UNITS.TBL to C:\WATERINPUT\UNITS.TBL](#)

THOSE ARE ALL THE FILES YOU NEED FOR THE WATERINPUT PROGRAM!

For Advanced Users - You can download and save WATERINPUT.ZIP, which is a compressed file that has all of the WATERINPUT program files, then expand and install the files yourself at your convenience.

### STEP 3 - MAKE A SHORTCUT TO THE WATERINPUT PROGRAM

This step is not necessary, but it makes your program easier to locate and run.

Use the 'My Computer' icon on your windows desktop to open explore, then open the C:\WATERINPUT directory, right click on WATERINPUT.EXE and select Create Shortcut. Then drag the shortcut icon onto your desktop.

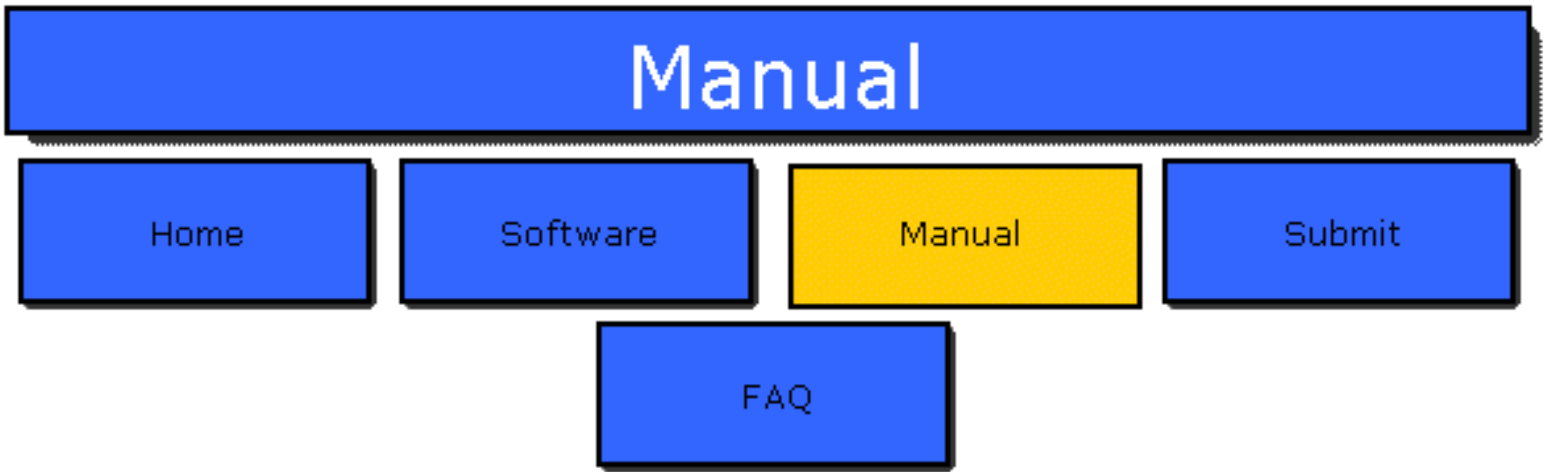
### STEP 4 - TIME TO ENTER DATA!

Go the to [Manual](#) section of this web site for data entry instructions.

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Questions or Problems - [Email Randy Harden: nrogm.rharden@state.ut.us](mailto:nrogm.rharden@state.ut.us)



This is the manual for the EDI program

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## ● Introduction

The Utah Division of Oil Gas and Mining has established standards for electronically submitting water monitoring data. Data is to be sent via email, disk or other electronic means to the Division as a standard comma delimited file. A comma delimited file is an ASCII DOS text file that uses commas to separate each field in a record and a hard return to separate each record. Using a comma delimited file is a common way to transfer data from one data system to another. Electronic Data Input (EDI) is the term used by the division for the specific comma delimited file necessary for data exchange. The term EDI format will be commonly used to refer to this file.

The primary purpose of the standard EDI format is to allow the Division to integrate water sample data directly into the APPX Water Quality Database. Additionally, the EDI format will allow others to integrate from the Division's water database with their database system.

By themselves, comma delimited files can be difficult to create, read and edit. In order to

facilitate the data entry process, the Division wrote a program to create, edit, convert and print the data from the standard comma delimited files. This program is called WATERINPUT.EXE and is freely available from the Division. The specifications for the EDI format file are found in the [Data Table Specification](#) section of this Users Guide. Field names used in this manual refer to the field names that are used in the Data Table Specifications and are shown in capital letters in the text of the manual ( example MINE\_ID ). Normally you should not have to be concerned with the naming and the specifications of the data table used in this program other than knowing what information is required in each field of the Data Entry Form, but they are provided for those who wish to understand or develop their own database system.

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## Getting Started

WATERINPUT was written and compiled using Visual FoxPro 6.0 and requires Windows 95/98 with an SVGA monitor at a resolution of 800x600 or greater (1024x768 recommended). To run this program, Visual FoxPro runtime files must be installed on your computer.

This installation only needs to be done once and you will NOT need to re-install them each time there is a revision or an update to the WATERINPUT program. Because the runtime library files are large (over 4 MB) it was decided to have them installed separately, rather than including them with the WATERINPUT program. This will make upgrading easier and keep the actual program files relatively small.

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## Installing the Software

You can go to the [Software](#) section of this web site to get instructions on downloading and installing the software.

If you made a shortcut to the program, you can just click on the shortcut icon to start the program. Otherwise you will have to go to the directory that you installed the program and double click on the WATERINPUT.exe program to start it.

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## Entering Data

**Water Quality**

File Edit Window

**Division of Oil, Gas, & Mining Water Quality Data Entry System**

Mine MineID Sample Site SiteID LabCode Sample Type

Field Date Sampled Field Time Sampled Sampler Name Lab ID Lab Date Received Lab Date Reported

Sample Parameter ID Equality Analytical Value Unit of Measure Min Detect Limit Analysis Method

Analysis Date Analysis Time Analyst Name Comments

Locate Record Edit Save Clear Entry Screen Sort Clear Sort Quit

Record: 1/19 Exclusive

A database file must first be created in order to enter data. To do this click on the File menu tab then click on New. Enter the name and the location of the file you want to create. For the purpose of this manual, let's call the file SAMPLE.DBF.

If you have already created a database file, then you can just open it. Remember that the database file you are selecting must have been created by the WATERINPUT program.

Once you have created a database you are ready to enter data. You will notice that many of the fields have a pull down menu to select and enter data. This method is used wherever possible so that 'valid' data information will be entered into the database. 'Valid' data is the information in each field that already exists in the database and can be readily selected from it. This method prevents entering incorrect data or typographic errors during data entry.

Those fields with 'valid' data entry requirements have a pull down menu from which data can be selected. Click on the small down arrow on the right hand side of the field to see a table of data from which you can select for that field. You can also begin typing the name that you want to enter into the field and the table will move to that position.

Each field in the data entry menu should be entered in the order that it is provided on the data entry screen as each selection determines which valid entries are available for the next

selection. For example, selecting the Mine determines which Sample Sites can be selected. Trying to select a sample site before selecting the mine site would mean that you would have to select the sample site from the hundreds of sample sites in the database rather than just the sample sites that are for that particular mine.

Detailed explanation for each data entry field

Each field necessary for data entry is as follow -

#### Mine

This field is used to select the appropriate mine. The pull-down menu includes the mine name and the permit number for the mine. This field helps to select the MINE\_ID number for the database.

#### MINE ID

The MINE\_ID is determined by the selection of the Mine. This is the number used to identify the mine site used in APPX.

#### Sample Site

The Sample Site is a pull down menu that gives a description of each of the sampling sites for a given mine that are currently found in the database. The pull down menu includes the description and SITE\_ID number found in the APPX database as well as a description of the sample site that was found in the mining and reclamation plan or the name commonly used to report the sample site as was found on previous laboratory reporting sheets. This selection determines the SITE\_ID number.

#### SITE ID

The SITE\_ID is determined by the selection of the sample site. This is the identifying number for the sample site used by APPX.

#### Lab Code

The Lab Code is a pull down menu that gives the name of each analytical laboratory and the three letter code that is used by the APPX database to identify the lab.

Notes - When laboratory analysis is performed on a given sample, use the appropriate lab code for all parameters in that sample, including any field parameters that were measured. If the data is for field measurements only and no laboratory analysis was performed, then the lab code should be set to FLD (Field Readings Only). If the site was inaccessible, then the lab code should be set to NOA (No Access) as there would be no other data reported for the site. If the site was accessible but there was no flow, then the lab code should be set to NOF (No Flow) as no further analytical data would be reported.

#### Sample Type

The Sample Type selection is for coding of the sample type into the APPX database. In most cases, the Sample Type will be selected as a Grab Sample. Only use No Flow or No Access sample types when no sample is collected. Field Reading is selected ONLY when just field data is reported and there is no accompanying laboratory analysis. When field readings are taken in conjunction with a sample sent for laboratory analysis, the sample type should be set to Grab Sample and NOT to Field Reading(only).

Notes - The codes for each Sample Type are as follows:

|             |    |
|-------------|----|
| Grab Sample | 4  |
| No Flow     | 10 |

|               |    |
|---------------|----|
| No Access     | 11 |
| Field Reading | 20 |

**Field Date Sampled**

Enter the date that the field sample was taken.

**Field Time Sampled**

Enter the time the sample was collected. Enter the time as HHMM Military time, i.e. 2:30pm would be entered as 1430.

**Sampler Name**

Enter the name or the initials of the person who took the sample.

**Lab ID**

The LAB\_ID is usually the the laboratory sheet identification number that was assigned to the sample by the lab. For some labs, this is referred to on the lab sheet as the 'Analysis Report Number'. The LAB\_ID is a unique identification for the lab sample sheet that is used as part of a unique key to identify each sample in the database.

**NOTE - When no identifying number can be found on the lab sheet or in cases where there is no lab sheet (such as when the data was collected in the field only), or there is NO FLOW or NO ACCESS which would also eliminate having a lab data sheet, enter the date that the sample was taken as the LAB\_ID in CCYYMMDD format, i.e. June 3, 1999 would be 19990603. (To keep the field unique, the Division staff may add an additional number to the date, such as "1999060301" just so that the field can be used as a key in identifying records in the database.)**

**Lab Date Received**

Enter the date (MM/DD/YYYY) the the sample was received by the laboratory.

**Lab Date Reported**

Enter the Date (MM/DD/YYYY) of the laboratory report.

**Sample Parameter**

The Sample Parameter is a numeric value assigned for each parameter by the APPX database. This field (PARAM\_ID) is selected from a table of known parameters that are listed in the database. The Sample parameter can be sorted and selected by name or by number by clicking on the appropriate button.

**Equality**

The Equality field is actually short for the term Equality Indicator and is used to show whether the analytical value is actually 'equal to', 'greater than', or 'less than' the number specified in the analytical value. If a given sample parameter has an analytical values less than the method detection limit, a '<' values should be assigned to the equality indicator and the analytical value should be value of the minimum detection limit.

**Analytical Value**

The Analytical Value is the numeric value for the given sample parameter.

**Notes -** When the analyte was analyzed but not detected at the indicated MDL the Analytical value should be entered as the MDL and the Equality Indicator should be set to '<'. If the analyte concentration was detected a a value between the MDL and the PQL (Practical Quantitation Limit), enter the value reported and set the Equality indicator to '='.

## Units

The Units field identifies the acceptable units that can be used for that particular value. In some cases, more than one unit may be allowed, such as feet or meters for depth. In other cases, there may only be one type of unit allowable for a given parameter. If the laboratory analysis reports the parameter in mg/l and the Units field will only allow ug/l, the analytical value should be converted to the units that are requested in the Units field.

Notes - It is possible that more different unit types will be added for each parameter in the future, however, the most common reporting units were included in the program to help minimize errors in the data entry system. It is easy to forget to change the units to the appropriate type when entering data and this most often leads to errors when submitting information. The APPX database system has an intricate method of analyzing and comparing data to verify that the information reported is in the proper units.

## Min Detect Limit

The Minimum Detection Limit, or in more proper terms the method detection limit, is the minimum value that is detectable given the particular parameter and the laboratory method used. This numeric value is reported by the lab to indicate the level to which the parameter can be sampled.

Notes - One of the most confounding and confusing parts of water analysis deals with the range and accuracy of sample analysis under varying methods. As values approach the lower(or upper) thresholds of the detection range of the methods, the accuracy or reliability of the reported values can vary considerably. Notation on the laboratory analysis may include other methods or qualifiers that are used to help evaluate the values determined by the lab, such as PQL and others. This information is considered useful when trying to evaluate trends or changes in sampling parameters that are at the extreme range of the methods used for the analysis. This evaluation is not a normal process that has been included in water analysis of coal mining operations. Consequently, data entry for varying method and range analysis has not been included as part of the data entry requirements. When data falls within the realm of such methods, the user can enter the values and the methods on the Comments line for the given parameter.

## Analysis Method

The Analysis Method is the specified lab procedure that was performed on a given parameter to obtain its value. Naming conventions for these various methods are similar but do vary from lab to lab. The APPX database has incorporated method names which appear to be the most commonly used for each parameter.

Notes - Because of the variety of names used for the same method, a single name may appear rather than all the different names used by labs for the same method. For example, the lab may have the method listed as M200.7 ICP while the database may only show EPA200.7 as a method. These methods would be identical. If an analysis method appears which is not similar at all to those found in the database tables, the method and description can be added in the Comment line for that particular parameter.

## Analysis Date

Enter the date (MM/DD/YYYY) that the laboratory performed the analysis for that particular parameter.

## Analysis Time

Enter the time the analysis was performed. Enter time as HHMM Military time, i.e. 2:30pm would be entered as 1430.

### Analyst Name

Enter the initials of the person who performed the lab analysis.

### Comments

Each Parameter has a Comment line to enter any additional information that may be useful in evaluating the data. As mentioned earlier, if an Analytical Method or other data does not seem to conform to the database data please include it in the Comment Line.

Notes - If a comment applies to the entire sample and not just to a particular parameter then enter that information by selecting Parameter Number 999 (End of File Comment) and supply that information on the comment line.

After the data has been entered for one parameter, click on the ADD button. The ADD button will enter the parameter information into the database and clear the values necessary for the next parameter. The information that remains the same for each sample parameter is not cleared so that you do not have to re-enter that information for the next parameter.

Once an entire sample site has been entered and added, the Clear Entry Screen button can be clicked to clear the entire data entry screen so that the new data for the next sample site can be entered.

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## Importing Data

Once information has been entered and converted into the standard EDI format, it can be imported into the WATERINPUT.EXE program. You must first create or open an exiting file, then click on the file menu tab then click on Import Comma Delimited File menu item.

The source of the EDI file may be from one the user created with the WATERINPUT program, from a lab, or from a query of the APPX database. By using the EDI format to transfer water data, many different sources and software platforms can be used.

You may import one or several files (one at a time) into the existing database file. This is useful in collecting data from several sites or sources into a single EDI format file.

After the file is imported, you can add and edit the information in the WATERINPUT program.

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## Editing Data

**Water Quality**

File Edit Window

**Division of Oil, Gas, & Mining Water Quality Data Entry System**

Mine: TRAIL MOUNTAIN #9 MineID: 3 Sample Site: UTG040003-002 SiteID: 2 LabCode: CTE Sample Type: ☒ Grab Sample ☐ No Flow ☐ No Access ☐ Field Reading

Field Date Sampled: 09/02/1998 Field Time Sampled: 1450 Sampler Name: DENNIS OAKLEY Lab ID: 59-19000 Lab Date Received: 09/03/1998 Lab Date Reported: 09/22/1998

Sample Parameter: SETTLEABLE SOLIDS ID: 99 Equality: = Analytical Value: 0.50000 Unit of Measure: ml/l Min Detect Limit: 0.50000 Analysis Method: EPA 160.5

Analysis Date: 09/03/1998 Analysis Time: 1400 Analyst Name: MK Comments: Add

| Mine_id | Site_id | Lab_code | Lab_id   | Param_id | Equality | Value       | Units    | Min_det   |
|---------|---------|----------|----------|----------|----------|-------------|----------|-----------|
| 3       | 2       | CTE      | 59-19000 | 52       |          | 20.000000   | mg/l     | 5.000000  |
| 3       | 2       | CTE      | 59-19000 | 53       |          | 24.000000   | mg/l     | 1.000000  |
| 3       | 2       | CTE      | 59-19000 | 62       |          | 633.000000  | mg/l     | 5.000000  |
| 3       | 2       | CTE      | 59-19000 | 63       |          | 119.000000  | mg/l     | 0.000000  |
| 3       | 2       | CTE      | 59-19000 | 67       |          | 1388.000000 | umhos/cm | 1.000000  |
| 3       | 2       | CTE      | 59-19000 | 68       |          | 898.000000  | mg/l     | 10.000000 |
| 3       | 2       | CTE      | 59-19000 | 99       | <        | 0.500000    | ml/l     | 0.500000  |
| 3       | 2       | CTE      | 59-19000 | 133      |          | 15.500000   | meq/l    | 0.000000  |
| 3       | 2       | CTE      | 59-19000 | 134      |          | 15.800000   | meq/l    | 0.000000  |
| 3       | 2       | CTE      | 59-19000 | 145      |          | 1.200000    | mg/l     | 0.100000  |

Locate Record Edit Save Clear Entry Screen Sort Clear Sort Quit

Dbfile (q:\groups\coal\database\water inpRecord: 24/28 Exclusive NUM

After an existing file has been opened, you can edit the information by using the browse window and then clicking once anywhere on the line of the record you wish to edit. A small arrow will appear on the left side of the browse window to indicate the record currently selected. Then click on the EDIT button. The information from the record will be written to the data entry screen area where you can view or change the data. When you are finished, click on the SAVE button to modify the information for that parameter.

If you are using the edit function to look at the data you can click on any record and then click EDIT to view that information. If you do not click SAVE the information that you may have changed in the data entry part of the screen will not be written to the file. If you click SAVE the information will be written directly to the database file and will replace the previous data for that record.

If you are updating or adding data to an existing sample, you can use the edit function to populate the data entry portion of the screen with existing data. This can save time by not having to re-enter the information by hand. Click on an existing record that has the same sample date and time that you want to use, then click on the SAVE button. You will now notice that you can change the parameter information and click on the ADD button to add the new parameter to the database. CAUTION - Make sure that you review and change all the parameter data (values, MDL, dates, times and comments so that they reflect the new parameter data and not the old parameter that you opened to start adding data. When you finish with the

first new parameter click on the ADD button and you can continue to add more parameters.

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## Printing a Report

The printing functions operate from the printer setting you have set in windows. Before starting the WATERINPUT program it is recommended that you have your default printer set in windows to the printer you want to use in the WATERINPUT program. If you need to change your printer settings after you start the WATERINPUT program you can but you can only temporarily change them and then print by pressing OK. If you change your printer settings then cancel your print job, the settings will revert back to you default windows printer settings.

Use the Print Preview, click on the File menu tab, then on Print Preview. You can adjust the window settings to change the viewing area in the Print Preview. The Print Preview is especially good for viewing and checking data when editing since the information is much easier to read than looking through the browse table on the data entry screen. From the Print Preview screen you can choose to page and scroll through the data or print the report.

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## Exporting Data

To export the database into a different format, click on the File menu tab, then click on Export.

**IMPORTANT! - Use the Export function to create files in the standard EDI format.** To submit data to the division, you need to send it in the standard EDI format, NOT as a database file created by the WATERINPUT program.

Example - you have created a database program called SAMPLE.DBF. Open that file, then use the Export function for comma delimited files to create a standard EDI format file called SAMPLE.TXT. SAMPLE.TXT would be the file you will submit to the division.

The Export function can be used to export the WATERINPUT database file to other formats including comma delimited, SDF, Lotus, dBase, Excel, or FoxPro tables. These formats may be useful when sending or incorporating data into other programs. Refer to the Data Table Specifications to get the order and length of fields in the Samples Table.

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## Data Table Specifications

The Data Table specifications are included to show the file structure for the sample data and the tables used in selecting and verifying information in the program. These specification have been included to assist those who desire to develop and maintain their own database system of water sampling information and for those who need to develop programs to automatically write data in the standard comma delimited format.

It is important to be aware that the information provided as part of data is specific to key field information in the APPX database. Incorrectly entered data creates errors and problems which must be resolved before the data can be processed and incorporated into the APPX database.

In order to minimize data entry error, a series of tables have been created in conjunction with the program that provide valid field data entry information. The Field Names used in the tables are further explained in the [Field Names and Descriptions](#) section of this manual. The specifications for those tables follow the specifications for the EDI standard format:

Table 01 - SAMPLES (**STANDARD EDI FORMAT**)

The SAMPLES Table represents the unique set of sampling information required to identify the mine, location, date and time for each sample parameter and method used for the sample. This database file is in the required format for updating fields in the APPX water database. This file structure is used to generate a comma delimited file which can be transferred electronically for incorporation into the APPX database using the division's standard EDI format. The field order and the field names are as follows:

Structure for table: SAMPLES

| Field | Field Name | Type      | Width | Dec |
|-------|------------|-----------|-------|-----|
| 1     | MINE_ID    | Integer   | 4     |     |
| 2     | SITE_ID    | Integer   | 4     |     |
| 3     | LAB_CODE   | Character | 3     |     |
| 4     | LAB_ID     | Character | 10    |     |
| 5     | PARAM_ID   | Integer   | 4     |     |
| 6     | EQUALITY   | Character | 1     |     |
| 7     | VALUE      | Numeric   | 14    | 6   |
| 8     | UNITS      | Character | 10    |     |
| 9     | MIN_DET    | Numeric   | 14    | 6   |
| 10    | ANAL_METHD | Character | 10    |     |
| 11    | DATE_ANAL  | Date*     | 8     |     |
| 12    | TIME_ANAL  | Integer   | 4     |     |
| 13    | ANAL_NAME  | Character | 3     |     |
| 14    | DATE_REC   | Date*     | 8     |     |
| 15    | DATE_RPT   | Date*     | 8     |     |

|    |            |           |    |  |
|----|------------|-----------|----|--|
| 16 | DATE_SAMP  | Date*     | 8  |  |
| 17 | TIME_SAMP  | Integer   | 4  |  |
| 18 | SAMP_TYPE  | Integer   | 4  |  |
| 19 | SAMPLR_NAM | Character | 20 |  |
| 20 | COMMENTS   | Character | 50 |  |

\*Note - Date fields determined in the database tables yield dates in the comma delimited file as a character field in the long international format (MM/DD/YYYY) with the "/"s" included in the field so that the date fields in the comma delimited files appear as, "MM/DD/YYYY".

Table 02 - LABS

The LABS Table provides a valid data entry table for the name and identification of laboratories used for water analysis. The field order and the field names are as follows:

Structure for table: LABS.TBL

The most current comma delimited file for LABS.TBL is here - [LABS.CDF](#)

| Field | Field Name | Type      | Width | Dec |
|-------|------------|-----------|-------|-----|
| 1     | LAB_CODE   | Character | 3     |     |
| 2     | LAB_NAME   | Character | 35    |     |

Table 03 - METHODS

The METHODS Table provides a valid data entry table for the methods of analysis which can be used for different analytical parameters. The field order and the field names are as follows:

Structure for table: METHODS.TBL

The most current comma delimited file for METHODS.TBL is here - [METHODS.CDF](#)

| Field | Field Name | Type    | Width | Dec |
|-------|------------|---------|-------|-----|
| 1     | PARAM_ID   | Integer | 4     |     |

|   |            |           |    |  |
|---|------------|-----------|----|--|
| 2 | ANAL_METHD | Character | 10 |  |
| 3 | DESCRIPT   | Character | 35 |  |

Table 04 - PARAMETER

The PARAMETER Table provides a valid data entry table for analytical parameters. The field order and the field names are as follows:

Structure for table: PARAMETER.TBL

The most current comma delimited file for PARAMETER.TBL is here - [PARAMETE.CDF](#)

| Field | Field Name | Type      | Width | Dec |
|-------|------------|-----------|-------|-----|
| 1     | PARAM_ID   | Integer   | 4     |     |
| 2     | DESCRIPT   | Character | 35    |     |

Table - 05 SITES

The SITES Table provides a valid data entry table for mine sites and their respective sample sites. The field order and the field names are as follows:

Structure for table: SITES.TBL

The most current comma delimited file for SITES.TBL is here - [SITES.CDF](#)

| Field | Field Name | Type      | Width | Dec |
|-------|------------|-----------|-------|-----|
| 1     | PERM_NO    | Character | 6     |     |
| 2     | MINE_NAME  | Character | 25    |     |
| 3     | MINE_ID    | Integer   | 4     |     |
| 4     | SITE_ID    | Integer   | 4     |     |
| 5     | SITE_NAME  | Character | 15    |     |

|   |           |           |    |  |
|---|-----------|-----------|----|--|
| 6 | SITE_TYPE | Character | 6  |  |
| 7 | DESCRIPT  | Character | 40 |  |

Table 06 - UNITS

The UNITS Table provides a valid data entry table for the units of measurement for various sample parameters. The field order and the field names are as follows:

Structure for table: UNITS.TBL

The most current comma delimited file for UNITS.TBL is here - [UNITS.CDF](#)

| Field | Field Name | Type      | Width | Dec |
|-------|------------|-----------|-------|-----|
| 1     | PARAM_ID   | Integer   | 4     |     |
| 2     | UNITS      | Character | 10    |     |
| 3     | DESCRIPT   | Character | 35    |     |

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## Field Names and Descriptions

The following field names and descriptions are to be used consistently throughout the database tables so that fields in various tables can readily be identified:

| FIELD NAME | DESCRIPTION   |
|------------|---|
| DATE-ANAL* | Date the Analysis was performed, 8 characters text, DATE value. (Data is entered from the Lab/Field Sample Sheets and Reports)  |
| ANAL_METHD | Method of Analysis, 10 character text, different methods of analysis can be used when sampling any given parameter (from the APPX water sample database), use valid entry table for selection. (Use Table 03 - METHODS) |
| TIME_ANAL  | Time the Analysis was taken, 4 character text, TIME value HHMM (military), (i.e. 4:30pm is 1630) (Data is entered from the Lab/Field Sample Sheets and Reports)   |

|                    |   |
|--------------------|---|
| <b>ANAL_NAME</b>   | Name of Lab Analyst, 3 character text, (initials of analyst) (Data is entered from the Lab/Field Sample Sheets and Reports)   |
| <b>VALUE</b>       | Analytical Value Measured, 14 characters numeric, 6 decimal places. (Data is entered from the Lab/Field Sample Sheets and Reports)  |
| <b>COMMENTS</b>    | Comments regarding the Sample Data, 50 characters text, (Data is entered from the Lab/Field Sample Sheets and Reports)  |
| <b>EQUALITY</b>    | Equality Indicator, 1 character text, use valid entry table. Acceptable values for this field are "<", ">", or ""   |
| <b>DATE_SAMP*</b>  | Field Date of Sample, 8 characters text, DATE value. (Data is entered from the Lab/Field Sample Sheets and Reports)   |
| <b>TIME_SAMP</b>   | Field Time of Sample, 4 characters text, TIME value HHMM(military time), (i.e. 4:30pm is 1630) (Data is entered from the Lab/Field Sample Sheets and Reports)   |
| <b>LAB_CODE</b>    | Laboratory Code, 3 character text, a three-letter code of each lab (from the APPX water sample database), use valid entry table for selection. (Use Table 02 - LABS)  |
| <b>DATE_REC</b>    | Date Lab Received Sample, 8 characters text, DATE value. (Data is entered from the Lab/Field Sample Sheets and Reports)   |
| <b>DATE_RPT*</b>   | Date of Lab Report, 8 characters text, DATE value. (Data is entered from the Lab/Field Sample Sheets and Reports)   |
| <b>LAB_ID</b>      | Laboratory Identification Number, 10 character text, must be derived from the actual lab data sheet. This is the sampling laboratories unique lab number assigned to each sample data sheet. (Data is entered from the Lab/Field Sample Sheets and Reports) |
| <b>LAB_NAME</b>    | Name of Laboratory, 35 characters text, (from the APPX water sample database), use valid entry table for selection. (Use Table 02 - LABS)   |
| <b>DESCRIPT(3)</b> | Description of the Analytical Method Used for the Sample Parameter, 35 characters text, (from the APPX water sample database), use valid entry table for selection. (Use Table 03 - METHODS)  |
| <b>MINE_DET</b>    | Minimum Detection Limit, 14 characters numeric, 6 decimal places. (Data is entered from the Lab/Field Sample Sheets and Reports)  |

|                    |  |
|--------------------|--|
| <b>MINE_ID</b>     | Mine ID Number, 4 character numeric integer, each mine has a unique three digit Id number (from the APPX water sample database), use valid entry table for selection. (Use Table 05 - SITES)   |
| <b>MINE_NAME</b>   | Name of Mine, 25 characters text, (from the APPX water sample database), use valid entry table for selection.(Use Table 05 - SITES)  |
| <b>MINE_NUM</b>    | Mine Number, 3 characters text, (from the APPX water sample database), since the Mine Number is the last three digits of the Permit Number, i.e. 007'004', this field is not present in the tables.  |
| <b>MINE_OPER</b>   | Name of Mine Operator (Company), 25 characters text, (from the APPX water sample database), since the Permit Number and the Mine Name are sufficient for identification, this field has not been included for selection.   |
| <b>DESCRIPT(4)</b> | Description of the Sample Parameters, 35 characters text, (from the APPX water sample database), use valid entry table for selection.(Use Table 04 - PARAMETER)  |
| <b>PARAM_ID</b>    | Sample Parameter Identification Number, 4 character numeric integer, each analysis has a specific parameter number (from the APPX water sample database), use valid entry table for selection. (Use Table 04 - PARAMETER)  |
| <b>PERM_NO</b>     | Permit Number, 6 characters text [County Number&Mine Number], this is the unique permit number used to identify each coal mine based on state-established county numbers and assigned mine numbers for each mine in their respective counties. (from the APPX water sample database), use valid entry table for selection.(Use Table 05 - SITES) |
| <b>SAMPLR_NAM</b>  | Name of Sampler, 20 characters text (Data is entered from the Lab/Field Sample Sheets and Reports)   |
| <b>SAMP_TYPE</b>   | Type of Sample Taken, 4 character numeric integer, unique numbers assigned to the type of sample take, acceptable entries for this field are: 4 - Grab Sample; 10 - No Flow; 11 - No Access; and. 20 - Field Reading.  |
| <b>DESCRIPT(5)</b> | Description of the Sample Location Site, 40 characters text, (usually the description or name of the site as it is referenced to by the mine operator). (from the APPX water sample database), use valid entry table for selection.(Use Table 05 - SITES)  |

|                    |   |
|--------------------|---|
| <b>SITE_ID</b>     | Sample Site Identification Number, 4 character numeric integer, unique three digit number assigned to sample point at a mine (from the APPX water sample database), use valid entry table for selection. (Use Table 05 - SITES) |
| <b>SITE_NAME</b>   | Name of Sample Site Location, 25 characters text, (from the APPX water sample database), use valid entry table for selection. (Use Table 05 - SITES)  |
| <b>UNITS</b>       | Unit of Measure, 10 character text, an acceptable unit of measure for each parameter is necessary (from the APPX water sample database), use valid entry table for selection. (Use Table 06 - UNITS)                            |
| <b>DESCRIPT(6)</b> | Description of the Units of measure, 35 characters text, (from the APPX water sample database), use valid entry table for selection. (Use Table 06 - UNITS)   |

\*Note - Date fields determined in the database tables yield dates in the comma delimited file as a character field in the long international format (MM/DD/YYYY) with the "/"s" included in the field so that the date fields in the comma delimited files appear as, "MM/DD/YYYY".

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## Software Updates

Periodically, the WATERINPUT program and/or table data for the program will be updated and revised. To make sure that you have the most recent version of the program and current table data, you can view and download the files from the Division's ftp site - <ftp://dogm.nr.state.ut.us/pub/software/waterinput/> or you can go to the [Software](#) section of this web site to download the program.

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## Customizing the Software

The Division can assist in customizing the software to suit specific needs. For example - the program can be customized to list only the mine(s) that you need to enter data for and only the sample sites associated with them. If you have specific requirements - please contact [Randy Harden](#) for additional information.

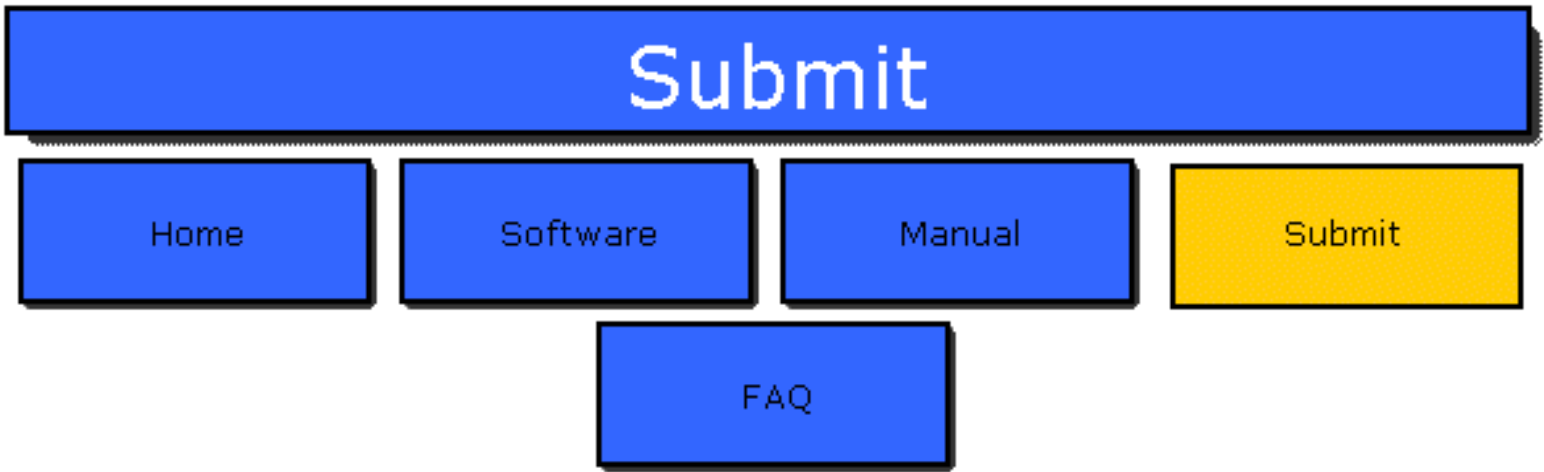
If you are creating your own database or are a laboratory that is willing to assist in electronic data submittal, the Division will also help in creating or developing ways to allow data to be transferred in the standard EDI format both to and from your system. Our goal is to eliminate the errors and redundancy or having to re-enter water sampling data.

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Questions or Problems - [Email Randy Harden: nrogm.rharden@state.ut.us](mailto:nrogm.rharden@state.ut.us)



Eventually, the Division will develop and establish several different methods for submitting data, based on the needs and capabilities of coal mine operators and laboratories who will be involved in submitting data in the standard EDI format. As each of these options become available, a description of each method will be included on this page.

**NOTE** - Before sending data to the Division, it must first be processed into the standard EDI format. To do this using the WATERINPUT program, you must use the export function of the program to create a comma delimited file in the standard EDI format. DO NOT submit copies of the .dbf file(s) that you created using the WATERINPUT program.

#### DATA SUBMITTAL:



##### Submitting EDI data via Email:

After you have created a file in the standard EDI format, submit it by attaching the file to an email. The text of the email should include a description of the data being sent, including the mine name, permit number and the reporting period for which the data is included. Any comments or other information that would be useful about the attached data should also be noted in the email document.

Send the Email document with the attached EDI file to:

Ken Wyatt - [nrogm.kwyatt@state.ut.us](mailto:nrogm.kwyatt@state.ut.us)

Ken will process and reply to your email as soon as possible. Normally, the data can be processed and incorporated into the APPX database within a day or two. In the event that there are errors or other problems with the data, a report indicating the errors or problems will be sent to you via email, along with a copy of your data submittal.



##### Submitting EDI data via FTP:

The Division is currently working on a procedure to do this. Check back here soon for an update.



##### Submitting EDI data via the WEB:

The Division is developing an interactive web site that will be used to submit data directly to the APPX database system. This web site will allow the user to immediately receive a validation report on the data. The web site will also allow you to query and download exiting data in the same EDI format so that you can evaluate historic data or update your own database. This web site should be completed and available by late 1999.

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Questions or Problems - [Email Randy Harden: nrogm.rharden@state.ut.us](#)

# FAQ

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## Frequently Asked Questions

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### How do I ... ?

download the EDI software?

Go to the [Software](#) section and follow the instructions, or go to DOGM's FTP site - <ftp://dogm.nr.state.ut.us/pub/software> and get it.

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## Where can I find ... ?

more electronic permitting information?

You can go the DOGM's Official Web Site - <http://dogm.nr.state.ut.us>

- or -

You can go the the 'Unofficial' DOGM Electronic Permitting Web Site -

<http://dogm.nr.state.ut.us/ep>

a copy of this manual that I can print?

You can get a copy of this manual in Adobe Acrobat format from

<ftp://dogm.nr.state.ut.us/pub/software/waterinput/edimanual/edimanual.pdf>

make sure you have also downloaded and installed the Adobe Acrobat reader.

You can download the free software from Adobe's Web Site

<http://www.adobe.com>

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## Why doesn't ... ?

the program let me enter data?

Before you can enter data, you must first create or open a data file. Click on the File tab, then open or create a new file. [\(See the EDI Manual\)](#)

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## Who is ... ?

the person to contact for help?

First, see if this web site can answer your questions.

If not you can call or email:

Ken Wyatt (801) 538-5266 [nrogm.kwyatt@state.ut.us](mailto:nrogm.kwyatt@state.ut.us)

- or -

Randy Harden (801) 538-5285 [nrogm.rharden@state.ut.us](mailto:nrogm.rharden@state.ut.us)

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## What is ... ?

### APPX???

APPX is the software program used to create and maintain the water quality database which is stored on the Department of Health's computer system. DOGM uses the APPX database to maintain and control the water quality database. Advanced data users may benefit by having direct access to APPX. The APPX database can be accessed directly over the internet with a valid user id and password. If you are interested in obtaining direct access to the APPX system please call or email [Ken Wyatt](#) at (801) 538-5266 for further information.

### EDI???

EDI is short for Electronic Data Input. The EDI format is a standardized comma delimited file that can be used to import or export data from the APPX database.

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## When is ... ?

### the EDI software updated?

The program will be updated and revised whenever a bug is fixed, or whenever there are parameters, methods, mine or site that are added to the database. Check the Software section of this web site often to see if you have the most up to date version.

### EDI submittal going to be required for all mines?

The Division hopes to eventually phase in all mining operations into electronic data submittal. A few of the operators have already submitted or are trying to submit data in the standard EDI format. The next big step in the process will be working with the water laboratories so that they can generate the lab data directly in EDI format. Once this has been accomplished, all operators should easily be able to submit data electronically.

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## What if ... ?

### I don't have a Lab Sheet or can't find a LAB\_ID number?

When no identifying number can be found on the lab sheet or in cases where there is no lab sheet (such as when the data was collected in the field only), or there is NO FLOW or NO ACCESS which would also eliminate having a lab data

sheet, enter the date that the sample was taken as the LAB\_ID in CCYYMMDD format, i.e. June 3, 1999 would be "**19990603**". (To keep the field unique, the Division staff may add an additional number to the date, such as "**1999060301**" just so that the field can be used as a key in identifying records in the database.)

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**Last Revised: September 16, 1999.**

# **Welcome**

to the

# **Utah Division of Oil, Gas and Mining**



**Division Information**



**Oil and Gas  
Information**



**Mining Information**

**DEPARTMENT OF NATURAL RESOURCES**

**STATE OF UTAH**

# Electronic Permitting

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0422

Last Updated on Monday, November 01, 1999

**W**elcome to the Utah Division of Oil, Gas and Mining's home page for Coal Mine Permitting...

Take a look at [What's New](#) in our web.

## PLEASE NOTE:

This Web Site is provided to promote the exchange of information and ideas relating to the coal mining industry in the State of Utah. Although the Division of Oil, Gas and Mining strives to provide the best and most current information possible through this Web Site, it cannot guarantee that all information found here is completely accurate or current. Comments, discussions or information found on this site may not be the policies or opinion of the Division and accordingly, the Division cannot be responsible for its use.

## What's New

The following is a list of recent additions to our web:

### August 30, 1999



A Preliminary Draft of the [PERMIT APPLICATION FORMAT AND CONTENT GUIDELINES](#) has been added for review and comment in the [Permit Guide](#) section of this web site.

### August 9, 1999



Coal Reserve Maps created by Trust Lands have been converted to PDF format and are on the FTP site. Go to [ftp://dogm.nr.state.ut.us/pub/mines/Coal\\_Related/maps](ftp://dogm.nr.state.ut.us/pub/mines/Coal_Related/maps) to view/download/print them.

### August 4, 1999

- "Where can I get a copy of the Coal Rules?" You can get the most current copy of the Utah Coal Rules off the web <http://www.rules.state.ut.us> -or- go to the [Quicklinks](#) section of this web to find state and federal web sites with environmental and regulatory information. If you want a copy in PDF format, we've also made that available on the FTP site at [ftp://dogm.nr.state.ut.us/PUB/MINES/Coal\\_Related/Stateregs/R645.pdf](ftp://dogm.nr.state.ut.us/PUB/MINES/Coal_Related/Stateregs/R645.pdf)

July 14, 1999

- [Electronic Data Input \(EDI\)](#) now has its own web site and Jeff has done a great job in writing the WATERINPUT program for reading and writing comma delimited files in the standard EDI format. Please check it out and let us know what you think! If you would like to try your hand at entering data, Ken can give you a stack of water lab sheets that need to be entered.

July 28, 1999

- Pictures of the Board Field Trips to Sunnyside, Westridge, and Dugout are on the Division FTP site. If you would like to view/download them start at <ftp://dogm.nr.state.ut.us/pub/mines/coal/>, then go to the look in the Images directory for each mine. Digital pictures of other mine sites are also found under their respective permit numbers and more will be added soon!

June 21, 1999

- [DNR Conservation Day Slides](#)

June 15, 1999

- [FiveMile Pass Field Trip](#) - A Slide Show of the June 4th Outing! Field trips and other slide shows will be located in the [Project](#) section of this web.

June 12, 1999

- Added many new [QUICK LINKS](#) to get you to regularly used web sites more quickly!

June 1, 1999

- The Scheduling Team has completed their guidelines for [Submittals Format](#) and the [Divisions Process for Permitting Actions](#). They have been added to the Guidelines section of this site.

May 8, 1999

- It's Official, DOGM has a new WEB Name. The DOGM Official Home Page can now be found at <http://dogm.nr.state.ut.us> if you want to get to the EP Home page you can now type <http://dogm.nr.state.ut.us/ep> to get there.

April 28, 1999

- [Projects](#) Added to EP Web Site - First Project: [Reclamation Handbook](#).

April 22, 1999



[DOGM FTP SITE](#) is now up and running!

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For problems or questions regarding this web site send email to [Randy Harden](#).